REMARKS

Initially, in the Office Action Claims 1 – 12 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 7,076,005 (Willenegger) in view of document WO00/35137 (Raith, et. al.).

Claims 1 – 12 remain pending in the present application.

35 U.S.C. §103 Rejections

Claims 1 – 12 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Willenegger in view of Raith, et. al. Applicant respectfully traverses these rejections.

Regarding Claims 1, 6, 7, and 12, Applicant submits that none of the cited references, taken alone or in any proper combination, disclose, suggest or render obvious the limitations in the combination of each of these claims of, *inter alia*, decoding the inband bit portion of a received frame to obtain confidence levels associated with each of the M codec modes, choosing the most likely channel codec mode based on the highest confidence level to channel decode the speech portion, or decoding the speech portion of the received frame using the chosen speech codec mode, or if the decoded speech frame is determined to be of poor quality, then choosing the next most likely codec mode corresponding to the next highest inband bit decoding confidence level of the confidence levels ordered before a decoding error has been detected and repeating steps (c) through (e).

Applicant submits that Willenegger teaches away from the limitations in the claims of the present application in that for the operations in Figure 2 to be implemented, they must be first triggered upon encountering an error resulting from an unsuccessful decoding of a frame (see, column 5, lines 1 – 2). Further, the combination of Willenegger and Raith, et. al. is improper since as mentioned, an error must occur to trigger the decoding in Willenegger. Therefore, if this was to occur, even with the combination of Raith, et. al., this teaches away from the limitations in the claims of the present application that occur before an error is

detected. Moreover, Raith, et. al. also teaches away from the limitations in the claims of the present application in that Raith clearly discloses that, "a code selection based on the respective likelihood metrics is biased based on prior communication between the terminal and the station from which the signal r(t) is transmitted" (see, page 12, lines 12 – 15). In contrast, the claims of the present application relate to decoding the inband bit portion of a received frame to obtain confidence levels that the inband bit portion has been received correctly. The inband bit portion is associated with each of the M codec modes. The confidence levels (of what the inband bit portion should be decoded as) are ordered from highest to lowest. Each possible decode of the inband bit portion represents codec mode. The limitations in the claims of the present invention are not dependent on using prior communication between the terminal and the station, as disclosed in Raith.

Moreover, for the Examiner's better understanding, there is a fundamental difference between the claims of the present application and the cited references. Willenegger discloses a system and method for detecting the transmit format of wireless data upon encountering a decoding error. Transmission formats, according to Willenegger can vary according to type of data such as video audio, modulation, transmission rate, error protection schemes, or transmission payload sizes. Certain receivers are designed to receive and decode multiple formats of data. Willenegger is directed towards determining what type of data is being received and then applying the proper codec scheme.

In contrast, the limitations in the claims of the present application are related to only speech and only a single codec scheme. Within the specific codec scheme there are multiple codec modes. The multiple codec modes provide a mechanism to deal with various channel conditions. When the transmission channel deteriorates a different codec mode that utilizes more inband bit decoding data is chosen. Thus, the limitations in the claims of the present invention related to dynamically and seamlessly choosing the best codec mode within a particular codec scheme. Willenegger discloses multiple codec schemes or data types.

Willenegger specifically acknowledges the problem that the present invention addresses when stating that corrupted data cannot be decoded successfully. When Willenegger encounters this situation it assumes the data could not be decoded because the wrong codec <u>scheme</u> was used. Willenegger then attempts to detect the proper scheme based on a prioritized list of acceptable schemes until the proper scheme is found. If channel conditions are poor and data is corrupted, decoding will be unsuccessful regardless of the codec scheme chosen.

The claims of the present invention relate to choosing a codec mode within a codec scheme based on current channel conditions. Thus, data that was initially received and considered corrupted may actually be properly decoded using a different codec mode within the codec scheme. Each codec mode utilizes differing proportions of inband bit data vs. speech data in a given frame. More inband bit data per frame allows the receiver to salvage and decode a received frame in poorer channel conditions. The multiple codec modes and percentage of inband bit data per frame are clearly illustrated in Fig. 2 of the present invention.

Applicant submits that Willenegger does not disclose or suggest <u>decoding the inband bit portion of a received frame to obtain confidence levels associated with each of the M codec modes</u>, since Willenegger only deals with multiple codec schemes <u>not</u> multiple codec modes within a particular codec scheme. Moreover, Willenegger does not disclose or suggest *choosing the most likely channel codec mode based on the highest confidence level to channel decode the speech portion* or <u>decoding the speech portion of the received frame using the chosen speech codec mode</u>, since Willenegger discloses choosing the most likely codec <u>scheme</u> not <u>mode</u> . Willenegger also does not disclose or suggest <u>if the decoded data frame is determined to be of poor quality, then choosing the next most likely codec mode corresponding to the next highest inband bit decoding confidence level</u>. Willenegger does not base any of its calculations or logical determinations on an inband bit decoding confidence level.

Regarding Claims 2 – 5 and 8 – 11, Applicant submits that these claims are dependent on one of independent Claims 1 and 7 and, therefore, are patentable at least for the same reasons noted previously regarding these independent claims.

Accordingly, Applicant submits that none of the cited references, taken alone or in any proper combination, disclose, suggest or render obvious the limitations in the combination of each of claims 1 – 12 of the present application. Applicant respectfully requests that these rejections be withdrawn and that these claims be allowed.

Conclusion

In view of the foregoing amendments and remarks, Applicant submits that claims 1-12 are now in condition for allowance. Accordingly, early allowance of such claims is respectfully requested. If the Examiner has any questions about the present Amendment or anticipates finally rejecting any claim of the present application, a telephone interview is requested. If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 13-4365.

Respectfully submitted,

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